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(74) Agent: GOLDSCHIED, Bettina; BASF Aktiengesellschaft, D-67056 Ludwigshafen (DE).

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(71) Applicant (for all designated States except US): KNOLL
AKTIENGESELLSCHAFT [DE/DE]; D-67061 Ludwigshafen (DE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): FRASER, Douglas,
Clark [GB/GB]; R4 Pennyfoot Street, Nottingham, NG1
1GF (GB). ST-GALLAY, Stephen, Anthony [GB/GB];
R3 Pennyfoot Street, Nottingham, NG1 1GF (GB).

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(54) Title: HUMAN HOMOLOGUE OF BOVINE NEUROENDOCRINE SECRETORY PROTEIN, NESP55, POLYNUCLEOTIDES AND USES THEREOF LINKED WITH OBESITY

IRLEVPKRMDRRSRAQQWRRARHNYNDLCPPIGRRAATALLWLSCSIALLRAL
ATSNARAQQRAAAQRRSFLNAHHRSGAQVFPESPESEDHEHEEADLELSLP
ECLEYEEFDYETESETESIESETDFETEPETAPTTEPETEPEDDRGPPVVPK
HSTFGQSLTQRLHALKLRSPDASPSRAPPSTQEPQSPREGEELKPEDKPPRRD
PEESKEPKKEEQRRCKPKKPTRRDASPESSKKGPIPIRRH

(I)

MDRRSRAQQWRRARHNYNDLCPPIGRRAATALLWLSCSIALLRALATSNARAQ
QRAAAQRRSFLNAHHRSGAQVFPESPESEDHEHEEADLELSLPECLEYEE
FDYETESETESIESETDFETEPETAPTTEPETEPEDDRGPPVVPKHSTFGQSL
TQRLHALKLRSPDASPSRAPPSTQEPQSPREGEELKPEDKPPRRDPEESKEPK
EEKQRRCKPKKPTRRDASPESSKKGPIPIRRH

(II)

(57) Abstract: A polypeptide derivable from human NESP55 wherein the said polypeptide is derivable, or predicted from the amino acid sequence of human NESP55 to be derivable, by endoproteolytic cleavage of a polypeptide having the amino acid sequence (I) or (II) (human NESP55) or of a variant thereof, wherein the polypeptide variant has an amino acid sequence which has at least 90 % identity with the amino acid sequence given above. NESP55 or fragments thereof may be useful in medicine for the treatment of obesity.

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INTERNATIONAL SEARCH REPORT

Internat. Application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/16 C07K16/26 A61K38/00 G01N33/56 C12Q1/68
C12N15/11 C07K14/575

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N A61K C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, STRAND, EMBASE, MEDLINE, CAB Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HAYWARD B E ET AL: "BIDIRECTIONAL- IMPRINTING OF A SINGLE GENE: GNAS1 ENCODES MATERNALLY, PATERNALLY, AND BIALLELICALLY DERIVED PROTEINS" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 95, December 1998 (1998-12), pages 15475-15480, XP000946062 ISSN: 0027-8424 cited in the application	1-19
Y	the whole document	20-22, 29-31, 33, 36-39, 43-46, 48-52
	-/-	

☒ Further documents are listed in the continuation of box C.

☐ Patent family members are listed in annex.

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European Patent Office, P.B. 5818 Patentaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Hix, R

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Intern: 31 Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>ISCHIA R ET AL: "MOLECULAR CLONING AND CHARACTERIZATION OF NESP55, A NOVEL CHROMOGRANIN-LIKE PRECURSOR OF A PEPTIDE WITH 5-HT 1B RECEPTOR ANTAGONIST ACTIVITY" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 272, no. 17, 25 April 1997 (1997-04-25), pages 11657-11662, XP000946065 ISSN: 0021-9258 the whole document</p>	<p>1-22, 29-31, 33, 36-39, 43-46, 48-52</p>
Y	<p>BAUER R. ET AL: "Localization of neuroendocrine secretory protein 55 messenger RNA in the rat brain." NEUROSCIENCE, (1999) 91/2 (685-694). , XP000938250 the whole document</p>	<p>1-22, 29-31, 33, 36-39, 43-46, 48-52</p>
Y	<p>LOVISETTI-SCAMIHORN P. ET AL: "Relative amounts and molecular forms of NESP55 in various bovin tissues." BRAIN RESEARCH, (22 MAY 1999) 829/1-2 (99-106). , XP000938339 the whole document</p>	<p>1-22, 29-31, 33, 36-39, 43-46, 48-52</p>
Y	<p>BAUER R. ET AL: "The new chromogranin-like protein NESP55 is preferentially localized in adrenaline-synthesizing cells of the bovine and rat adrenal medulla." NEUROSCIENCE LETTERS, (19 MAR 1999) 263/1 (13-16). , XP000949224 the whole document</p>	<p>1-22, 29-31, 33, 36-39, 43-46, 48-52</p>
P,X	<p>WEISS U. ET AL: "Neuroendocrine secretory protein 55 (NESP55): Alternative splicing onto transcripts of the GNAS gene and posttranslational processing of a maternally expressed protein." NEUROENDOCRINOLOGY, (2000) 71/3 (177-186). , XP000938251 the whole document</p>	<p>1-18</p>

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INTERNATIONAL SEARCH REPORT

Intern: 31 Application No

PCT/EP 00/06921

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	HAYWARD B.E. ET AL: "An imprinted antisense transcript at the human GNAS1 locus." HUMAN MOLECULAR GENETICS, (22 MAR 2000) 9/5 (835-841). , XP000946068 the whole document	1-19
P,X	WROE, STEPHANIE F. ET AL: "An imprinted transcript, antisense to Nesp, adds complexity to the cluste of imprinted genes at the mouse Gnas locus" PROC. NATL. ACAD. SCI. U. S. A. (2000), 97(7), 3342-3346 , XP000938372 figure 1	1-19
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 23-35, 40-42, 47 and 49 to 52 partially

The interacting polypeptides, nucleic acid encoding therefore and antagonists of claims 23 to 28, compounds identified by the method of claims 29 or 30, the compounds of claims 40 to 42 and compound identified by the method of claim 44 or 45, and methods 49 to 51 and use claim 52 as far as they relate to the compound of claim 47, are insufficiently characterized, comprising no technical features of the products per se, consequently a complete and meaningful search is not possible.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

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